

Characterization of waste - Determination of loss on ignition in waste, sludge and sediments

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ignition in waste, sludge and sediments

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 15169:2007 sisaldab Euroopa standardi EN 15169:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 30.03.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 15169:2007 consists of the English text of the European standard EN 15169:2007.</p> <p>This document is endorsed on 30.03.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This European Standard specifies a method for the determination of the loss on ignition. This procedure is applicable to all kinds of waste, sludge and sediments. The loss on ignition is often used as an estimate for the content of non-volatile organic matter in waste, sludge and sediments. It should be noted that any content of elementary carbon and volatilisation of organic materials or chemical reactions by inorganic compounds, is included in the loss on ignition.</p>	<p>Scope:</p> <p>This European Standard specifies a method for the determination of the loss on ignition. This procedure is applicable to all kinds of waste, sludge and sediments. The loss on ignition is often used as an estimate for the content of non-volatile organic matter in waste, sludge and sediments. It should be noted that any content of elementary carbon and volatilisation of organic materials or chemical reactions by inorganic compounds, is included in the loss on ignition.</p>
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ICS 13.030.40

Võtmesõnad:

ICS 13.030.40

English Version

Characterization of waste - Determination of loss on ignition in waste, sludge and sediments

Caractérisation des déchets - Détermination de la perte au feu des déchets, des boues et des sédiments

Charakterisierung von Abfall - Bestimmung des Glühverlustes in Abfall, Schlamm und Sedimenten

This European Standard was approved by CEN on 13 January 2007.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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Foreword

This document (EN 15169:2007) has been prepared by Technical Committee CEN/TC 292 "Characterization of waste", the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2007, and conflicting national standards shall be withdrawn at the latest by August 2007.

The method described in this standard has been derived from EN 12879 which was prepared by CEN/TC 308.

Anyone dealing with waste and sludge analysis should be aware of the risks of that kind of material, irrespective of the parameters to be determined. Waste and sludge samples may contain hazardous (e. g. toxic, reactive, flammable, infectious) substances, which can be prone to biological and/or chemical reaction. Consequently these samples should be handled with special care. Gases which may be produced by microbiological or chemical activity are potentially flammable and will pressurise sealed bottles. Bursting bottles are likely to result in hazardous shrapnel, dust and/or aerosol. National regulations should be followed with respect to all hazards associated with this method.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This European Standard specifies a method for the determination of the loss on ignition.

This procedure is applicable to all kinds of waste, sludge and sediments.

The loss on ignition is often used as an estimate for the content of non-volatile organic matter in waste, sludge and sediments. It should be noted that any content of elementary carbon and volatilisation of organic materials or chemical reactions by inorganic compounds, is included in the loss on ignition.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 14346, *Characterisation of waste — Calculation of dry matter by determination of dry residue or water content*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
loss on ignition
change in mass as a result of heating a sample under specified conditions. The loss on ignition is expressed in weight percent of the dry matter

3.2
residue on ignition
mass remaining after heating a sample under specified conditions. The residue on ignition is expressed in weight percent of the dry matter

3.3
dry residue
 w_{dr}
remaining mass fraction of a sample after a drying process at 105 °C, as specified in EN 14346

3.4
water content
 w_w
mass fraction of water in a sample determined by Karl-Fischer titration, as specified in EN 14346

3.5
dry matter
 w_{dm}
mass fraction of a sample excluding water expressed as a percentage by mass, calculated by determination of dry residue or water content according to EN 14346

3.6
constant mass
constant mass is obtained when the change in mass during a further period of heating of 1 h is within 0,5 % (m/m) or 2 mg, whatever is greater